The Great Basin Naturalist

Published by the
Department of Zoology and Entomology
Brigham Young University, Provo, Utah

Volume III JUNE 15, 1942 No. 1

A NEW CYRTOPOGON (ASILIDAE, DIPTERA) FROM UTAH[1]

D. ELMER JOHNSON
Lava Hot Springs, Idaho

Cyrtopogon albifacies Johnson, new species

Black; mystax white; mesonotal disc gray pilose; tarsi of male long, slender, last joint flattened, pollinose crossband entire on first abdominal segment. Length 15 mm.

Male: Facial gibbosity white pollinose; mystax solid white; two basal antennal segments black, faintly white pollinose, hairs mostly white, but several black ones on second segment; second segment two-thirds as long as first; third segment missing, hairs of front black, tuft of white ones on ocellar tubercle; the front is pollinose, but is greased; orbits broadly bordered above, behind, and below with black hair, hair posterior to this is luteus; palpi black, black haired. Prothorax gray pollinose, white haired. Mesonotal disc shining black, gray pollinose, markings are obscure; hairs moderately abundant, gray; patch of long, slender, black hairs on mesopleurae, a few white ones on the metasternum. Pleurae gray pollinose; trichostical pile mixed black and white. Scutellum gray pollinose, flat. Wings gray hyaline, veins dark brown. Halters, knob yellow, stalk black. Femora black, long white pilose, a few black hairs apically; tibiae black, fore and middle ones very narrowly tipped with reddish; pile and bristles of middle and hind pairs dark brown to black; bristles and forsal pile of fore tibiae black, long white pile ventrally; middle and hind tarsi black, with black bristles, pads golden brown; fore tarsi clear honey yellow, long slender, last segment very long, slender, flattened; long white pile ventrally on metatarus, bristles long, slender, black, claws black, pulvilli dark; claws of middle and hind tarsi slightly reddish basally; pulvilli and empodia yellow. Abdomen shining black, white pollinose cross-bands on posterior margins or segments 1—6, interrupted on sixth segment only; moderately long grayish white pile on sides of first segment, rest of abdomen with short black pile, long on sides of segments two and three; genitalia black, pile mixed dark and light.

Female: Front scantily gray pollinose; one or two black hairs in upper mystax. Hair of ocellar tubercle black. Antennae black, third joint broadest two-thirds of the distance from the base, style hair as long as third segment.

(1) Contribution No. 98 from the Department of Zoology and Entomology, Brigham Young University.

Pile of thoracic dorsum shorter, less abundant; geminate strips more pronounced, brownish. Light hairs of abdomen extend into second segment, more yellowish than in male. Cross-bands on segments 1—5; genital spines dark red.

This species is nearest *evidens* O. S., but differs in the obscureness of the markings on the thoracic dorsum, has gray pollen instead of brownish, and has white mystax instead of black.

Type Locality: Glacier Lake, Mt. Timpanogos, Utah. Elevation 10,600 feet. The holotype is a ♂ and was collected by Vasco M. Tanner in August, 1928. The allotype and one paratype are ♀♀ and were collected at the same locality in July, 1935, by Edwin T. Vest. All three specimens are in the entomological collection of the Brigham Young University. Dr. D. E. Hardy collected a female at the type locality on August 15, 1936, which has been designated as a paratype. This specimen is now in the S. W. Bromley Collection.

The following supplementary material was furnished by Dr. D. Elmo Hardy, after studying the holotype and allotype specimens.(2)

"This species is more closely related to *C. planitarsus* Wilcox and Martin, the males may be distinguished by the following characters: The mystax is entirely white haired with no vertical line of black hairs in the middle. The ocellar tubercle entirely white haired instead of black; the lateral tufts of long white hairs extend over the inner margins of the eyes. Mesonotum chiefly subopaque, the shining black of the ground color is largely obscured by rather thick gray pollen (the specimen has been degreased since Johnson wrote the original description); mesonotal markings gray pollinose not golden brown as in *C. planitarsus*. The hairs of mesonotum and scutellum white with a few darker hairs intermixed on posterior margin of scutellum; instead of entirely black as in the related species. One distinct, black, notopleural bristle on each side and three or more brownish yellow to black bristles present on the posterior calli; the original description of *planitarsus* states that there are no definite bristles on the thorax. The mesopleurae of *albifacies* are subshining instead of shining black and the hypopleurae (as interpreted in the Asilidae) have just a few dark hairs scattered through the white, not having brownish hairs above and yellowish below. The front tibiae have a dense mat of long white pile extending their entire length below, not with a dense fringe of black bristles and hairs.

(2) This species was described in 1936 by Mr. Johnson in "A Further Study of Utah Asilidae," a Master's thesis, submitted to the department of zoology and entomology of Brigham Young University. Since this description has never been published, it was decided that if the species was still undescribed that it should be published. With Mr. Johnson's permission, I submitted the type specimens to Dr. D. Elmo Hardy, an alumnus of this institution and a very capable student of the Diptera, for his study and opinion. After reviewing the recent literature on this genus, he reported that it is undoubtedly an undescribed species. He furnishes the following comments and drawings which we are pleased to include along with Mr. Johnson's description.—Editor.

"After degreasing the holotype the following characteristics are evident. The face and front are entirely silvery gray, the subshining black ground color is obscured by dense pubescence. The mesonotum is mostly grayed by the pollen (microscopic pubescence), with a pair of gray dorsocentral vittae and a median stripe extending longitudinally from the anterior margin beyond the transverse suture; with a broad lateral stripe extending from behind each humerus to the posterior calli, this gray area extends transversely along the hind margin of the humerus until it converges with a dorsocentral stripe. Hind margin and portions inside the vittae subshining. The posterior crossband of fifth abdominal tergum is interrupted medianly.

"The basitarsi are equal in length to the next three subsegments of front tarsi, the fifth subsegment is less than half the width of the first and slightly subequal to it in length; the fifth joint broadens gradually toward its apex (fig. I, 3).

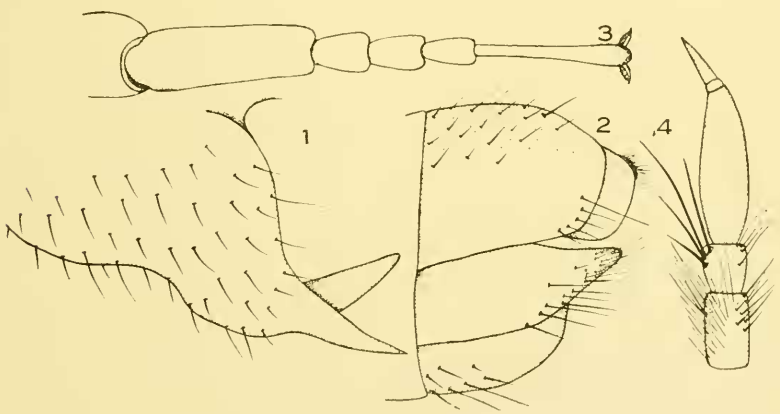

Fig. I. *Cyrtopogon albifacies* Johnson, new species. (1) Left clasper of ♂ ventral view; (2) Left lateral view of ♂ genitalia; (3) Hind tarsus of ♂ dorsal view; (4) Antenna of ♀. Drawings made by D. Elmo Hardy.

"Male Genitalia: Rather inconspicuous, not strongly produced. The ninth tergum is divided into two plates by a deep median cleft, the posterior margins of these plates very broad and rounding. The clasping structures are bilobed, produced into a slender pointed ventral lobe and a slightly shorter, more broad lobe arising on the inner surface of the main arm of the clasper and visible only from a ventral view (fig. I, 1); the outer lobe is yellow-red in color and the inner lobes shining black. The apical portion of each coxite appears obtuse from lateral view (fig. I, 2).

"FEMALE: This sex is distinguished from planitarsus by having the mesonotum, hypoleurae and abdomen as in male, abdominal segments six and seven shining black, not brownish. The female fits rather closely the description of the female specimen which Wilcox and Martin[3] doubtfully referred to *C. lineotarsus* Curran except that the mesonotum is largely grayish pollinose, only faintly shining and the antennal style is less than half the length of the third segment instead of about two-thirds its length as shown in Wilcox and Martin's figure of *lineotarsus* (fig. 1, 4)."

(3) 1936, Ento. Amer. XVI, 59-60.

American Association for the Advancement of Science

The twenty-sixth annual meeting of the Pacific Division of the American Association for the Advancement of Science will be held in Salt Lake City on June 15 to 20, 1942. A symposium on "The Great Basin, with emphasis on Glacial and Post-Glacial Times" has been arranged jointly by the American Association for the Advancement of Science and the American Society of Icthyologists and Herpetologists. The following papers will be given in the symposium: "The Geological Background," Elliott Blackwelder, Stanford University; "The Zoological Evidence," C. L. Hubbs and R. R. Miller, University of Michigan, Ann Arbor; and "Climatic Changes and Pre-White Man," Ernst Antevs, Globe, Arizona.

Many organizations such as the following will participate: Pacific Division of the American Association of Economic Entomologists; American Phytopathological Society; American Society of Ichthyologists and Herpetologists; American Society of Plant Physiologists; Botanical Society of America; Ecological Society of America; Society for Experimental Biology and Medicine; and Utah Academy of Sciences, Arts and Letters.

The local sponsoring organizations are: Utah Academy of Sciences, Arts and Letters; Utah State Agricultural College; Brigham Young University; Weber Junior College; and University of Utah.—V.M.T.